



Stacked Bar graphs: Fast Food vs. State

How to Get a Random Sample from CensusAtSchool

Go to the CensusAtSchool [Random Sampler](#) to download a sample.X

Reference year: *(select year)* **Sample size:** *200 students*

Select questions: *Favourite type of take-away food*

Location: *Select location* **Year level:** *(select a range of year levels)*

To protect privacy there is a rule built into the sampler that the requested sample size cannot exceed 10% entered.



Please note: This task can be completed by hand or using a computer.

Task:

1. In your CensusAtSchool random sample, find the questions about 'which state/territory do you live in?', and the question about 'what is your favourite type of takeaway?', and:
 - ✓ Copy and paste the two columns into an Excel spreadsheet, or
 - ✓ Select and print the two columns from the spreadsheet to glue in your workbook.
2. Sort your data by state; it's easier if you use the SORT function in Excel.
3. Select three states/territories in Australia you would like to investigate. Each state must have at least twenty student answers.
4. Use the first twenty student answers from each of the three states to fill in the frequency table over leaf. You are only using sixty student answers all together.
5. Use the frequencies to calculate percentages for each favourite type of takeaway food within each state.
6. Use the percentages to create a stacked bar chart for each of the three states/territories that you are investigating.
 - Decide on a scale for the y axis.
 - Use different colours or patterns for each fast food, and create a key.
 - It will be helpful if you graph the different categories of fast food in the same order so you can compare.



- To help you with questions 8 and 9, you could reorder the food categories from 'foods you should eat the most' to 'foods you should eat the least'.

7. Can you identify any trends between people's most popular fast food and the state/territory they live in?

8. In your opinion, people living in which state/territory have the most unhealthy fast food favourites? Give reasons for your answer.

9. In your opinion, people living in which state/territory have the most healthy fast food favourites? Give reasons for your answer.

10. Why is this data best displayed in a stacked bar graph? Give reasons.

11. List some other ways to graph this data.



Frequency table of Favourite type of takeaway by state/territory living in

Do people born overseas have different favourite fast foods to people born in Australia?

Give examples and suggest reasons, using graphs and summaries.

State → Type of takeaway ↓						
	Frequenc y	Percenta ge	Frequenc y	Percenta ge	Frequenc y	Percenta ge
Chicken (eg. BBQ chicken)						
Chips/ Fries						
Fish (eg. Fish and Chips)						
Fruit/ Fruit Salad						
Hamburgers						
Kebabs/ Wraps						
Noodle dishes						
Pies/ Pasties						
Pizza/ Pasta						
Rice dishes (eg. Sushi)						
Rolls/ Sandwiches						
Salads						
Other						
None						
Total		100 %		100 %		100 %

Extension:

Use your random sample or take other random samples from international CensusAtSchool to investigate and answer the following question: